REMARKS

The foregoing amendment is provided to impart clarity and to more particularly point out the subject matter claimed, rather than to avoid prior art.

Applicant respectfully requests reconsideration of the above identified application. Claims 1-29 are pending. Claims 1-6, 9-16, 19, and 21-29 are rejected. Claims 7, 8, 17, 18, and 20 are objected to. Claims 1-4 are amended.

Applicant respectfully notes that in the Office Action mailed on June 30, 2004, interpretations or characterizations by the Examiner, include inferences and/or potential limitations, to which Applicant does not agree.

The remaining comments are directed to Claims 1-29.

35 U.S.C. § 102(b) REJECTIONS

The Office Action mailed on June 30, 2004 rejects Claims 1-29 under 35 U.S.C. 102(b) as allegedly being anticipated by US Pat. No. 6,065,105 (Zaidi).

Applicant respectfully disagrees.

Claim 1, as amended, sets forth dependency matching logic to receive a first dependency coordinate and a second dependency coordinate corresponding to a single dependency relationship.

Zaidi, on the other hand, describes a dependency matrix wherein each micro-op in a waiting buffer has, in the dependency matrix, one dependency vector associated with that micro-op to indicate which micro-ops the present micro-op is dependent upon (Fig. 3, col. 4, lines 18-22). Zaidi does not disclose or suggest a pair of coordinates for a single

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dependency. Therefore, Applicant respectfully submits that claim 1 is not anticipated by the cited reference.

Similar to the subject matter presented above, claim 9 sets forth generating first and second dependency coordinates to indicate that a second instruction is dependent on a first instruction. In addition, claim 9 also sets forth using the first dependency coordinate to access the second dependency coordinate.

The Office Action points to Fig. 5 of Zaidi and the related text of col. 8 as an illustration of generating first and second dependency vectors, but Fig. 5 does not refer to dependency vectors. On the contrary, Fig. 5 shows dispatch wave vectors, one for each dispatch port, each vector having a "1" in those locations corresponding to micro-ops that are ready for dispatch (col. 8, lines 11-15 and 23-26).

Zaidi does not disclose or suggest a pair of dependency coordinates to indicate that one particular instruction is dependent upon another particular instruction, much less using the first coordinate to access the second coordinate. Therefore, Applicant respectfully submits that claim 9 is not anticipated by the cited reference.

Claim 13 sets forth: storing a first instruction in a first location within a first buffer and a second instruction, dependent on the first instruction, in a second location within a second buffer; generating a first dependency coordinate to indicate that the · second instruction is dependent on an instruction stored in the first buffer and a second dependency coordinate to indicate that the second instruction is dependent on an instruction stored in the first location.

With regard to claim 13, the Office Action states that each dependency vector corresponds to the waiting buffer. Applicant respectfully submits that because there is only the one waiting buffer, Zaidi does not disclose or suggest a second instruction in a second buffer, or that one of a pair of dependency coordinates indicates that the second

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instruction is dependent on an instruction in the first buffer. Therefore, Applicant respectfully submits that claim 13 is not anticipated by the cited reference.

Similarly, claim 15 sets forth: a location to store a first dependency coordinate referencing one of a plurality of operation buffers and a second location to store a second dependency coordinate referencing a location in an operation buffer.

Zaidi does not disclose or suggest a plurality of operation buffers and since there is only the one waiting buffer, Zaidi does not disclose or suggest storing one of a pair of dependency coordinates referencing any of the plurality of operation buffers. Therefore, Applicant respectfully submits that claim 15 is not anticipated by the cited reference.

At least because of the arguments presented above with regard to claims 13 and 15, Applicant respectfully submits that claims 19, 21 and 22 are not anticipated by the cited reference.

Therefore, Applicants respectfully submit that Claims 1, 9, 13, 15, 19, 21 and 22 are patently distinguished over the art cited by the Examiner. Applicants further believe that Claims 2-6, 10-12, 14, 16 and 23-29 being dependent therefrom are also patentable. Accordingly, Applicants respectfully request the Examiner withdraw his rejection under 35 U.S.C. 102(b).

Applicants, therefore, believe that Claims 1-29 are presently in condition for allowance and such action is earnestly solicited.

CONCLUSION

Applicants respectfully submit the present claims for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Lawrence M. Mennemeier at (408) 765-2194.

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Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 9-30·04

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